US ERA ARCHIVE DOCUMENT

Environmental Permitting for Healthcare Industry



July 30, 2008

Major Media Programs

- Construction Stormwater
- Baseline Stormwater
- Wastewater
- Air Emissions
- Hazardous Waste / Non-Hazardous Waste

Construction Stormwater

- Permit generally issued to contractors
- New or expansion projects > 1 acre
- Projects > 5 acres submit LCNOI
- Establishes Best Management Practices (BMPs)
- Terminated after site is stable

Baseline Stormwater

- Issued to Owner/Operator of facility
- Addresses threats to runoff contamination
- Establishes Best Management Practices (BMPs)
- Hospitals generally are <u>not subject</u> to Baseline Stormwater Permitting

Questions about Stormwater?



- <u>Pretreatment Program: discharge to City</u> Wastewater Treatment Plant (POTW)
 - Most common for medical centers
- NPDES Program: discharge to a Water of the State
 - National Pollutant Discharge Elimination System

- Pretreatment
 - Permit is usually <u>not</u> required for Hospitals and Medical Centers
 - Generally, Hospital wastewater is non-regulated....
 - Condensate
 - Boiler blowdown
 - Sanitary (sinks, toilets, baths, etc.)
 - Floor drains
 - Kitchen drains

- Pretreatment, cont.
 - Hospitals are Non-categorical
 - No federal Pretreatment standards apply
 - Hospitals are Non-significant (usually)
 - < 25,000 gallons process WW per day
 - < 5% of organic and hydraulic capacity of POTW

- Pretreatment, cont.
 - Process wastewater could include:
 - Laundry washing machines
 - Photographic / X-ray imaging processes
 - Dentists (amalgam containing mercury)
 - Follow local city ordinances, restrictions
 - If Pretreatment does apply, use Form 2-P

FORM	2-P
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Pretreatment Form 2-P

For Agency Use	
Application Number	
Date Received	

STATE OF MISSISSIPPI OFFICE OF POLLUTION CONTROL P. O. BOX 2261 JACKSON, MISSISSIPPI 39225-2261

APPLICATION FOR A STATE OPERATING PRETREATMENT PERMIT

Please print or type

(Please print or	iypej						
1. Name of Applicant:							
2. Mailing Ad	dress of Applicant:	ĺ					
Number & 50	reet (P. O. Box):						
City:		s	tate:			Zip:	
Telephone N	umber:						
3. Applicants	Authorized Agent:						
Name and Ti	ie:						
Number & 5t	reet (P. O. Box):						
City:		s	tate:			Zip:	
Telephone Number:						_	
4. Facilities L	ocation:						
Number & 5t	reet (P. O. Box):						
City:				County:			
Latitude (Deg)., Min., Sec.):						
Longitude (D	Longitude (Deg., Min., Sec.):						
5. Nature of Business:							
6. Location Map: (Provide as an attachment to this application)							
7. SIC CODES (4-digit, in order of priority)							

NPDES

- Not an option if access to POTW connection
- Federal Standard does apply (40 CFR 460)
 - pH limits
 - BOD₅ limits
 - TSS limits
 - Best Practicable Control Technology Currently Available
- Would require NPDES Permit application..

FORM U.S. ENVIRONMENTAL PROTECTION ABOUT 1 PAGE 10 MARKET 1 PROTECTION ABOUT 1 PAGE 10 MARKET 1 PAGE 1 PAGE 10 MARKET 1 PAGE 1 PAGE 10 MARKET 1 PAGE 1 P	
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II. POLLUTANT CHARACTERISTICS	
INST RUCTIONS: Complete A through I to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must whind that fairs and the supplemental form little in the parentheus following the question. Mark "X" in the box in the Unit dufurer.	
If the supplemental form is stitution. If you enswer "no" to each question, you need not admit any of those forms. You may answer "no" if your activity is undusted from permit requirements; see Section C of the instructions. See also, Section D of the instructions of helfs—faced terms.	
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B COUNTY NAME	
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EPA Form 3510-1 (3-95) CONTINUE ON REVENSE	Page 1 of 5

NPDES Form 1

NPDES Form 2D

- Major Regulations
 - WPC-1 (State NPDES Regs)
 - WPC-2 (State Water Quality Criteria)
 - Federal Water Quality Criteria
 - 303(d) List of Impaired Waterbodies

Questions about Wastewater?



- Common Sources
 - Boilers
 - Emergency Back-up Power Generators
 - Laboratory Fume Hood
 - Storage Tanks
 - Incinerators
 - HMIWI (Hospital/Medical/Infectious Waste Incinerators)

- Boilers
 - Natural gas, fuel oil fired
 - Products of Combustion
 - 8,760 hours/year calculation

- Emergency Back-up Generators
 - Diesel fuel
 - Products of Combustion
 - 500 hours/year calculation
 - N/A if selling power back to grid

- Lab Fume Hoods
 - Various Volatile Organic Compounds (VOC)
 - Hazardous Air Pollutants (HAPs)
 - OSHA regulated

- Storage Tanks
 - Various Volatile Organic Compounds (VOC)
 - Hazardous Air Pollutants (HAPs)
 - Register USTs at MDEQ's UST Branch
 - ASTs may be subject to SPCC
 - Spill Prevention Control Countermeasure

- Incinerators
 - Type 1: Solid Waste Only (cardboard, rubbish)
 - Type 2: HMIWI (Hospital/Medical/Infectious Waste Incinerators)
 - State Regulation APC-S-1, Section 12, HMIWI
 - Small, Medium and Large Classifications
 - PM, CO, Dioxins, HCl, SO₂, NOx, Lead, Cd, Hg
 - Operator training & qualifications
 - Inspection guidelines
 - Compliance testing, monitoring

- Facility: defined by entire campus
- Facility-wide Emissions Inventory
 - List all stationary sources
 - Specify PTE of all Regulated Air Pollutants (lbs/hr)
 - Total Annual PTE for each Pollutant (tons/year)
 - See what applies.....

- Applicability Determinations
 - Permit to Construct (PTC)
 - Title V Operating Permit (TVOP)
 - Synthetic Minor Operating Permit (SMOP)
 - PSD Permit to Construct (PSD)

- Permit to Construct
 - New Facility or Modification of an Existing One
 - APC-S-2, Section XIII, Exclusions
 - If required, apply <u>early</u>: 6 months before <u>commencement</u> of construction
 - Submit Application for a PTC/PTO

PTC/PTO Application Form

STATE OF MISSISSIPPI
DEPT. OF ENVIRONMENTAL QUALITY
OFFICE OF POLLUTION CONTROL
P.O. BOX 2261
JACKSON, MS 39225-2261
(601) 961-5171

APPLICATION FOR AIR POLLUTION CONTROL PERMIT TO CONSTRUCT AND/OR OPERATE AIR EMISSIONS EQUIPMENT

TYPE OF PERMIT

New Source	
Modification	
Renewal of Operating Per	rmit
Existing Source Operating	g Permit
Name	
Location: City	County —
Facility No. (if known)	

AFF-NEW.1

- Title V Operating Permit (TVOP)
 - TV Major Source? Look at PTE (Potential to Emit)
 - Criteria Pollutants > 100 tons/year
 - (PM, SO₂, NOx, CO, VOC, Lead)
 - Hazardous Air Pollutants (HAPs), 188 Listed HAPs
 - Single HAP > 10 tons/year
 - Combination of HAPs > 25 tons/year
 - Submit TVOP Application Form
 - Subject to TV Annual Fee (based on emissions)

TVOP Application Form

FOR OFFICIAL DIR ONLY					
APPLICATION ESCRIPT DATE:					
APPLICATION NO.4					
FOR MODERICATION : MINOR					
MINOL					

STATE OF MISSISSIPPI
DEPARTMENT OF ENVIRONMENTAL QUALITY
OFFICE OF POLLUTION CONTROL
AIR DIVISION
P.O. BOX 2261
JACKSON, MS. 39225-2261
PHONE NO.: (601) 961 - 5171

APPLICATION FOR TITLE V
AIR POLLUTION CONTROL PERMIT
TO OPERATE AIR EMISSIONS EQUIPMENT

PERMITTING A	CTIVITY:		
	INITIAL APPLICATION MODIFICATION RENEWAL OF OPER		
NAME:			
спу:			
COUNTY:			
FACILITY No. (if kmo	wn):		
Tile V Application Ministral / telegrop or	-	Suprimaker 12, 1999	Page #1

- Synthetic Minor Operating Permit
 - If <u>actual</u> emissions < TV major <u>thresholds</u>...
 - May apply for SMOP:
 - Take restrictions in operation so PTE < 100/25/10 tpy
 - e.g., Restrict hours per year
 - e.g., Restrict gallons of fuel per year
 - Submit SMOP Addendum w/ TVOP Applic.
 - No Annual Fees; less complex

SMOP Addendum Form

STATE OF MISSISSIPPI
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OFFICE OF POLLUTION CONTROL
P.O. BOX 2261
JACKSON, MS 39225-2261
(601) 961-5171

APPLICATION ADDENDUM FOR A SYNTHETIC MINOR OPERATING PERMIT

NOTE: Thi

This addendum may be affixed to the front of the Application for Title V Air Pollution Control Permit to Operate Air Emissions Equipment. If the addendum is used, all air emission sources, pollutants, and emission rates must be included in the application. There are no insignificant or trivial activities.

A Synthetic Minor Source is defined in Regulation APC-S-2 as: Any facility which would otherwise constitute a major source under Commission Regulation APC-S-6, "Air Emissions Operating Permit Regulations for the Purposes of Title V of the Federal Clean Air Act", except that the owner or operator of the facility elects for federally enforceable emissions limitations which may include permit conditions restricting hours of operation, or type or amount of material stored, combusted or processed, or establishing more stringent air pollution control efficiency requirements to lower allowable emissions for air pollutants in the State Permit to Operate below applicability thresholds for a Title V major source.

Facility Name	
Facility Number (If Known)	
City	County

- Prevention of Significant Deterioration
 - Need a PSD Permit to Construct if....
 - Constructing new facility > 250 tpy,
 - Modifying where changes > 250 tpy, or
 - Modifying a PSD Major Source (>250 tpy) where changes greater than PSD <u>Significant Emission Rates</u>:
 - > 40 tpy VOC, NOx or SO₂
 - > 100 tpy of CO
 - > 25/15 tpy of PM/PM₁₀ respectively

- Major State Air Regulations
 - APC-S-1 (Regs on Pollutants)
 - APC-S-2 (Regs on Permits)
 - APC-S-6 (Title V Regs)

Questions about Air?



Hazardous Waste















		60			
Regular Waste: Black Bag	Biohazardous Waste: Red Bag	Sharps Disposal Containers	Pharmaceutical Waste: Contact Pharmacy	Yellow Chemo Containers	Hazardous Waste
□ Trash □ Paper, Wrappers □ Dressings □ Chux □ Diapers □ Gloves □ Empty Foley Bags and Other Drainage Bags □ Disposable Patient Items □ Sanitary Napkins □ Batteries (Alkaline only)	□ Blood and all OPIM (Other Potentially Infectious Material) □ Blood Tubing/ Bags/Hemovacs/ Pleurevacs □ Soaked/ Dripping Bloody Dressings. □ Empty Suction Canisters or those with absorbent material □ Suction Liners with Bloody Fluid or OPIM □ All Disposable Items Soaked or Dripping with Blood or OPIM □ Dialyzers and tubing □ Microbiology specimens, tubes bottles, and devices □ Human and Animal pathological wastes (label for incineration) □ All Disposable Items Contaminated with Blood/Body Fluids from Isolation Patients	□ All sharps (needles,,blades, scalpels, razors, pins, clips, staples, wires, broken contaminated glass, disposable suture sets, biopsy forceps, and lancets) □ All empty syringes, tubexes, carpujects or those with unpourable amount of medication. □ Trocars, introducers, guide wires, sharps from procedures, specimen devices in endoscopy etc. (Use large volume sharps container if needed)	□ Glass Vials, ampules □ Syringes, tubexes, carpujects with residual (pourable) medication □ IV bags / tubing with residual medication □ Partially used/ residual prescription or over-the- counter medication Example:vials, tablets, capsules, powders, liquids, creams/lotions, eye drops suppositories, ½ tablet □ Residual or wasted narcotics and/or controlled drugs □ Narcotic patches Unopened/Unused or Expired Medications: Return to Pharmacy Hazardous R.C.R.A. Pharmaceuticals: □ Return to Pharmacy Examples: Inhalers with residual (if empty-regular trash), unused nicotine gum or patches, nitroglycerine tablets, unused/residual acetone, coumadin, cough syrup with alcohol content greater than 24%	Trace Chemo: All supplies used to make and administer chemo medication Example: tubing, empty bags/bottles/vials, syringes, gloves, pads, masks, gowns, wipes etc. Used Chemo spill Clean-up kits HEPA filters from Pharmacy laminar air flow hoods Return all unused Chemo to Pharmacy	Radioactive: Call Radiation Safety Officer for disposal of all radioactive waste. Call Chemical Safety Officer for disposal of all chemical waste. All Non-Alkaline batteries Outdated/unused chemotherapy drugs (bulk) Mercury-filled devices, batteries, thermometers, & blood pressure cuffs & gauges Used solvents, stains, paints, and thinner Containers with "hazardous" label Formaldehyde & formalin, acetone, toluene, mercury fixatives, barium, xylene, alcohol, disinfectants & chemical sterilizing agents

Hazardous Waste

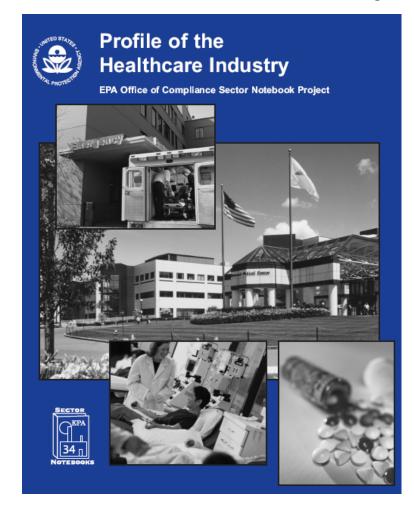
- Call Dallas Baker or Richard Harrell
- See previous presentations....





EPA's Profile of Healthcare Industry

Available in AdobeFile



Permitting Contact

- Dallas Baker, Environmental Permits Division
 - **601-961-5670**
 - dbaker@deq.state.ms.us
 - www.deq.state.ms.us
 - Application Forms
 - Regulations

Final Questions



